Magazines Without Paper

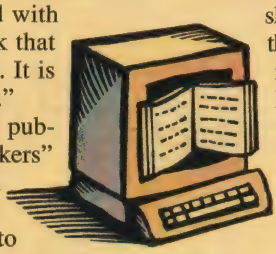
KEVIN M. SAVETZ

The common wisdom has been that freedom of the press is limited to those with access to one. However, global-computer networks such as the Internet are giving more people a quick and inexpensive means to express their point of view through a form of electronic publishing known as *electronic journals* or *E-journals*.

Through E-journals, anyone with access to a computer and a modem can produce and distribute an electronic magazine through a computer network. CICNet, a cooperative academic network, maintains a large collection of E-journals. At last count, there were more than 350 E-journals in the CICNet collection, covering every conceivable topic, including AIDS awareness, fiction, legal information, music, and telecommunications. When there isn't an E-journal that fits a need, starting one requires only a computer, access to a network, and the will to succeed.

For instance, *Unplastic News* is the sort of nutty fun that probably couldn't exist without electronic distribution. A recent edition, for example, had the unlikely title "The Psychic Net Godmother Issue," while another was dedicated to bald people "because we have bald friends who demand their human rights."

"*Unplastic News* is really only a silly magazine with no real writing in it," says publisher Todd Tibbetts. Yet "we have thousands of readers, [and] we don't pollute the world with paper. We get feedback that people enjoy reading it. It is pure silly entertainment."



E-journal editors and publishers range from "crackers" (those who gain illegal access into computers and telephone systems) to respected scientists and journalists. For example, Jason Snell, editor and publisher of *InterText*, a bi-monthly fiction magazine, is a student at the University of California at Berkeley working toward a master's degree in journalism.

Most E-journal publishers would be unable to produce a traditional magazine, due to cost and time constraints. But online publishing offers them the ability to create a publication using minimal resources. "We can go head to head with other media as far as getting information out there," notes Andrew Moss, an editor for *Unplastic News*. "It costs nothing but our time to send this thing out."

Aficionados of computer networks are by nature dabblers in many things, being "more sophisticated about technology" in the words of David Dodell, D.M.D., publisher of *Health Info-Com Network Newsletter*. Thus, E-journals usually have a more diverse, although smaller, audience than traditional magazines. Since they are distributed and read online, it's difficult to track their readership. For instance, Snell estimates that any given issue of *InterText* is read by 5000 to 20,000 people. Despite having only 1100 registered subscribers, Snell says that *InterText* is read by "untold numbers" on BBSes or the Internet.

If there's a problem confronting the entire E-journal concept, it's that they are useful only for transmitting text. "There is no easy way to transmit photographs," says Dodell. And, of course, you have to produce your own hard copy if you want to read an E-journal while commuting to work.

Like most E-journals, *InterText* is free. Subscribing means nothing more than asking to receive new issues in your electronic mailbox automatically. E-journals generally lack advertising, often because many network operators forbid it. Consequently, until there is a method for profit in electronic-magazine distribution, E-journals are not likely to become a mainstream medium, even though such commercial publications as BYTE, *Utne Reader*, and *VAR Business* offer varying forms of electronic publishing through on-line ser-

to distribute documents to business partners or customers. Publishing on CD-ROM is becoming an increasing popular answer for such situations, especially for organizations with large document databases that do not change rapidly.

CD-ROMs offer huge storage capacities—up to 700 MB—in a small package (see "Start the Presses," February BYTE). They are durable, take almost no space, and are easy to mail. For example, 3M uses CD-ROMs to distribute internally a database describing 50,000 products. The 100-MB database, prepared with DataWare's (Cambridge, MA) CD Author and CD Answer software, supports searching for products by description, pricing, and other criteria. In the past, 3M used a microfiche system that could search by product number only. 3M estimates its savings at $2.5 million annually in lower preparation and distribution costs, as well as in time saved by faster searches.

On a much smaller scale, the International Center for Diffraction Data in Philadelphia, with just 30 employees, uses DataWare to prepare CD-ROMs of scientific software and databases for internal use and for commercial sale. Mark Holomany, computer facilities manager for the International Center, uses a write-once CD-ROM drive for small jobs. "A CD-ROM blank costs $19 to $35," says Holomany, "so we can do a run of 20 to 40 discs ourselves." For its main database sold to subscribers, a master costs about $4000, including a thousand replicas—or about $4 a CD. The International Center would go exclusively to CD-ROM, but some international customers don't have CD-ROM yet, says Holomany.

Computer-conferencing systems provided by a third-party service or as an in-house venture are yet another means of publishing and building your organizational knowledge base. DEC's VTX or Softwords' (Victoria, BC, Canada) CoSy are two examples of conferencing systems.

The basic element of a conferencing system is the discussion group; hence, the use of the term *conferencing*. Essentially,

vices such as BIX and Prodigy.

While there's some worry among E-journal editors that traditional publishers will bring their capital and clout into the arena, ethical and legal matters surrounding the free flow of information over global networks may be a greater concern. "The lines between personal liberty, invasion of privacy, civil-rights violations, and government regulation of technology intersect when it comes to electronic publishing," says Geoff Duncan, a software tester for Microsoft and assistant editor of *InterText*.

Still, in Tibbetts' view, the future for E-journals looks exciting, despite such concerns. "There are many out there who believe this [ungoverned flow of information] will destroy the planet," Tibbetts says. "But I believe it will free us."

Duncan agrees that information technology is leveling the playing field in a society where information increasingly equals power. He's just not so confident about the future of E-journals. "Maybe E-journals will fade as information access becomes faster and, arguably, as attention spans decrease."

Kevin M. Savetz is a freelance writer based in Arcata, California. He specializes in networks and telecommunications. You can reach him on BIX c/o "editors" or on the Internet at savetz@rahul.net.

conferencing systems provide you with the ability to create your own database of free-form messages that you can read, comment on, and search. Your discussions can be highly structured, as in a business meeting, chaotic like an idea session, or a mixture of the two. Discussions can be open to all, or you can set up small, closed-group discussions. You can augment these systems with straight data feeds generated internally or externally, and you can set up gateways to global E-mail systems, software file libraries, the Internet, and international news services.

Assuming that you have communications capabilities up and running, setting up a conferencing system is not that difficult at first—it is simply a matter of loading the program, organizing disk files, and setting up your discussion groups. But it gets complicated once you get going. One of the biggest problems is with storage. Disk space disappears faster than you believed possible as message after message are stored. Program libraries and supplementary news and data feeds quickly eat up more space. Both situations force you to cull out messages and data, which undermines the expansion of your knowledge base through electronic publishing. To get around this, you can add more storage capacity, but that gets expensive.

Another difficulty with running your own conferencing system arises when you are using it for communications between widely dispersed offices. To do this, you'll need external data-network connections or your own modem bank, both of which are notoriously finicky. With modems, you'd set up a bank of modems connected to a telephone router. The router redirects incoming calls through a series of modem connections to the first available open line. Depending on the number of callers you anticipate, you can run up quite a bill with your local telephone company. The rule of thumb is that you need one connection for every 10 system users.

Data networks come with their own problems. For example, response speed can be variable because of network usage, network relay failure, and the condition of the local telephone lines. The X.25 protocol, a common network communications protocol, has a variety of software settings that require knowledgeable experts to set and maintain properly.

Data networks can also be expensive. Pricing generally is based on such factors as time of day and location of the call, number of characters sent and received, and the number of data packets sent and received. Unless you anticipate huge usage, connecting to an external third-party data-network operator may be prohibitively expensive.

Rather than set up your own network and conferencing system, CompuServe (Dayton, OH), General Videotex (Cambridge, MA), and other on-line service companies will set up private conferencing facilities tailored to your specifications. You can select from a variety of facilities, such as private software file libraries to send your data back and forth, external news feeds, and the like. The beauty of using third-party service providers is that they handle all computer management, disk storage, software development, and other tasks related to running an electronic conferencing system, letting you stick to running your own business. You can also open up separate discussions for your customers and for potential customers.

Pricing for such private conferencing services varies depending on number of users, network usage, and services desired. For example, General Videotex charges $39.95 to set up a private service on its Delphi on-line system; custom features are extra. Additional users in your area would pay the normal Delphi subscription and telecommunications fees, but they would have access to all Delphi features, such as full Internet access and private E-mail. For large organizations with a number of users, fees would range from between $500 and $10,000 to set up a private conferencing service, dependent on the type and level of customization you require, according to General Videotex spokesman Rusty Williams.

Spreading Knowledge, Not Paper

The in-house document publishing business is growing rapidly. For example, looking only at desktop-based document management systems, the root of any in-house publishing capability, analyst Bamford at BIS Strategic Decisions projects growth from 59,000 users this year to 345,000 users in 1997.

Several companies have put off installing a document publishing system due to the lack of a complete, packaged solution for the problems confronting electronic publishing. But given the diverse range of needs, there may never be a single solution.

While electronic publishing is a fairly new field, and many of the products do not work well together, it's clear that more and more industry leaders such as Adobe, Microsoft, and WordPerfect are giving you the ability to spread your organization's knowledge base further than before through products that create platform-independent data files. The trick is to use your computers as a way to unlock the information in your documents and build your knowledge base rather than simply as a way to generate ever more paper to stuff into file cabinets. ■

Cary Lu is the author of The Apple Macintosh Book *(Microsoft Press, 1992). He has advised several companies on document management systems. He can be contacted on BIX c/o "editors."*